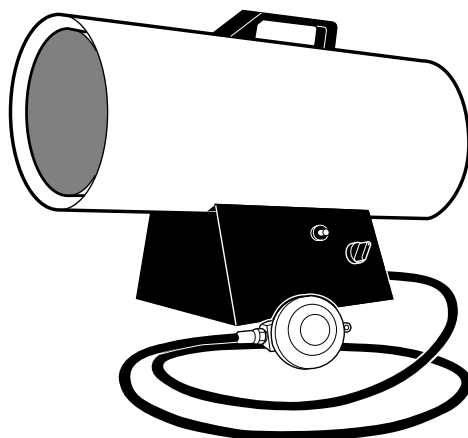


For more information, visit www.desatech.com

Variable
30,000, 40,000,
50,000 Btu/Hr



IMPORTANT: Read and understand this manual before assembling, starting or servicing heater. Improper use of heater can cause serious injury. Keep this manual for future reference.

⚠ GENERAL HAZARD WARNING:

FAILURE TO COMPLY WITH THE PRECAUTIONS AND INSTRUCTIONS PROVIDED WITH THIS HEATER, CAN RESULT IN DEATH, SERIOUS BODILY INJURY AND PROPERTY LOSS OR DAMAGE FROM HAZARDS OF FIRE, EXPLOSION, BURN, ASPHYXIATION, CARBON MONOXIDE POISONING, AND/OR ELECTRICAL SHOCK.

ONLY PERSONS WHO CAN UNDERSTAND AND FOLLOW THE INSTRUCTIONS SHOULD USE OR SERVICE THIS HEATER.

IF YOU NEED ASSISTANCE OR HEATER INFORMATION SUCH AS AN INSTRUCTIONS MANUAL, LABELS, ETC. CONTACT THE MANUFACTURER.

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SAFETY INFORMATION

WARNINGS

⚠ WARNING: This product contains and/or generates chemicals known to the State of California to cause cancer or birth defects, or other reproductive harm.

⚠ WARNING: FIRE, BURN, INHALATION, AND EXPLOSION HAZARD. KEEP SOLID COMBUSTIBLES, SUCH AS BUILDING MATERIALS, PAPER OR CARDBOARD, A SAFE DISTANCE AWAY FROM THE HEATER AS RECOMMENDED BY THE INSTRUCTIONS. NEVER USE THE HEATER IN SPACES WHICH DO OR MAY CONTAIN VOLATILE OR AIRBORNE COMBUSTIBLES, OR PRODUCTS SUCH AS GASOLINE, SOLVENTS, PAINT THINNER, DUST PARTICLES OR UNKNOWN CHEMICALS.

⚠ WARNING: NOT FOR HOME OR RECREATIONAL VEHICLE USE.

The heater is designed for use as a construction heater in accordance with *ANSI Z83.7/CGA 2.14*. Other standards govern the use of fuel gases and heating products for specific uses. Your local authority can advise you about these. The primary purpose of construction heaters is to provide temporary heating of buildings under construction, alteration or repair. Properly used, the heater provides safe economical heating. Products of combustion are vented into the area being heated.

We cannot foresee every use which may be made of our heaters. **CHECK WITH YOUR LOCAL FIRE SAFETY AUTHORITY IF YOU HAVE QUESTIONS ABOUT HEATER USE.**

Other standards govern the use of fuel gases and heat producing products for specific uses. Your local authorities can advise you about these.

Carbon Monoxide Poisoning: Some people are more affected by carbon monoxide than others. Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness, and/or nausea. If you have these signs, the heater may not be working properly. **Get fresh air at once!** Check for proper ventilation and have heater serviced.

Propane Gas: Propane gas is odorless. An odor-making agent is added to propane gas. The odor helps you detect a propane gas leak. However, the odor added to propane gas may fade. Propane gas may be present even though no odor exists.

Make certain you read and understand all warnings. Keep this manual for reference. It is your guide to safe and proper operation of this heater.

- Install and use heater with care. Follow all local ordinances and codes. In the absence of local ordinances and codes, refer to the *Standard for Storage and Handling of Liquefied Petroleum Gas, ANSI/NFPA 58* and the *Natural Gas Installation Code, CAN/CGA B149.2*. This instructs on the safe storage and handling of propane gases.

- Use only the electrical voltage and frequency specified on model plate.
- The electrical connections and grounding of the heater shall follow the *National Electric Code, ANSI/NFPA 70*, or *Canadian Electrical Code, part I*.
- Electrical grounding instructions — This appliance is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle.
- Use only a three-prong, grounded extension cord.
- Use only the hose and factory preset regulator provided with the heater.
- Use only propane gas set up for vapor withdrawal.
- Provide adequate ventilation. Before using heater, provide at least a 1.5-square-foot opening of fresh, outside air.
- This product has been approved for use in the Commonwealth of Massachusetts.
- For indoor use only. Do not use heater outdoors.
- Do not use heater in occupied dwellings or in living or sleeping quarters.
- Do not use heater below ground level. Propane gas is heavier than air. If a leak occurs, propane gas may sink to the lowest possible level.
- Keep appliance area clear and free from combustible materials, gasoline, paint thinner, and other flammable vapors and liquids. Do not use heater in areas with high dust content.
- Minimum heater clearances from combustibles:
Outlet: 6 Ft. Sides: 2 Ft. Top: 6 Ft. Rear: 2 Ft.
- Keep heater at least six feet from propane tank(s). Do not point heater at propane tank(s) within 20 feet.
- Keep propane tank(s) below 100° F.
- Check heater for damage before each use. Do not use a damaged heater.
- Check hose before each use of heater. If highly worn or cut, replace before using heater.
- Locate heater on stable and level surface if heater is hot or operating.
- Not intended for use on finished floors.
- Never block air inlet (rear) or air outlet (front) of heater.
- Keep heater away from strong drafts, water spray, rain, or dripping water.
- Do not leave heater unattended.
- Keep children and animals away from heater.
- Never move, handle, or service a hot, operating, or plugged-in heater. Severe burns may result. Wait 20 minutes after turning heater off.

SAFETY INFORMATION

Continued

- To prevent injury, wear gloves when handling heater.
- Never attach duct work to heater.
- Do not alter heater. Keep heater in its original state.
- Do not use heater if altered.
- Turn off propane supply and unplug heater when not in use.
- Use only original replacement parts. This heater must use design-specific parts. Do not substitute or use generic parts. Improper replacement parts could cause serious or fatal injuries.

PRODUCT IDENTIFICATION

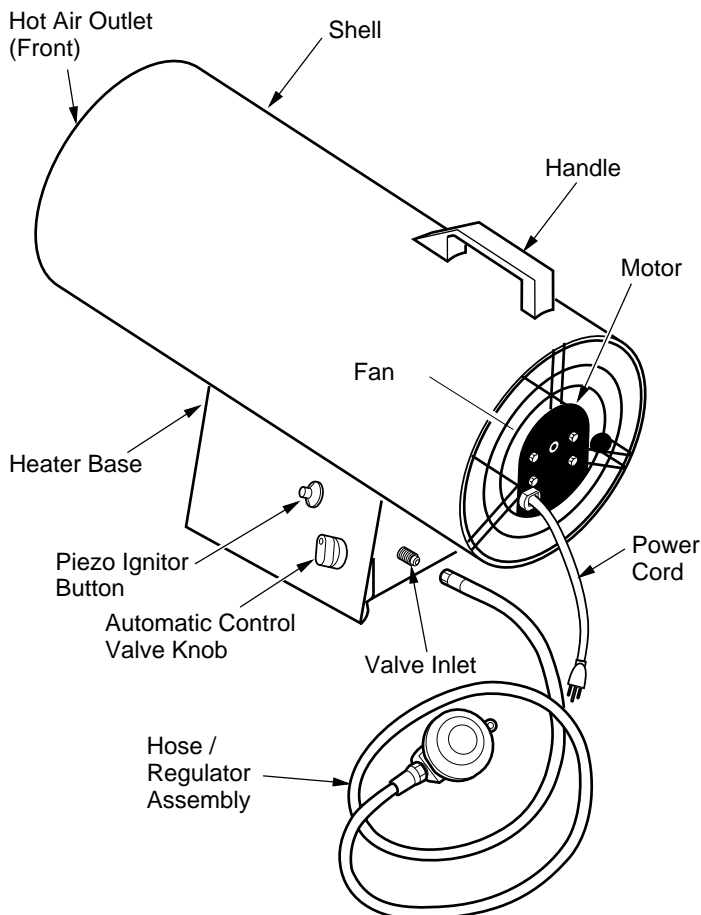


Figure 1 - 50,000 BTU/Hr Model

UNPACKING

1. Remove all packing items applied to heater for shipment. Keep plastic cover caps (attached to inlet connector and hose/regulator assembly) for storage.
2. Remove all items from carton.
3. Check all items for shipping damage. If heater is damaged, promptly inform dealer where you bought heater.

PROPANE SUPPLY

Propane gas and propane tank(s) are to be furnished by the user.

Use this heater only with a propane vapor withdrawal supply system. See Chapter 5 of the *Standard for Storage and Handling of Liquefied Petroleum Gas, ANSI/NFPA 58 and/or CAN/CGA B149.2*. Your local library or fire department will have this booklet.

The amount of propane gas ready for use from propane tanks varies. Two factors decide this amount:

1. The amount of propane gas in tank(s)
2. The temperature of tank(s)

This heater is designed to operate with a minimum 20-pound propane tank. You may need two or more tanks or one larger tank in colder weather. Use a 100-pound tank for longer operation or in very cold weather. Less gas is vaporized at lower temperatures. Your local propane gas dealer will help you select the proper supply system. The minimum surrounding air temperature rating for each heater is -20°F (-29°C).

Average Temperature (°F) At Tank Location	Number Of Tanks (100-pound)
40°	1
32°	1
20°	1
10°	1
0°	1
-10°	2
-20 °	2

THEORY OF OPERATION

The Fuel System: The hose/regulator assembly attaches to the propane gas supply. This provides fuel to the heater.

The Air System: The motor turns the fan. The fan pushes air into and around the combustion chamber. This air is heated and provides a stream of clean, hot air.

The Ignition System: The piezo ignitor lights the burner.

The Automatic Control System: This system causes the heater to shut down if the flame goes out.

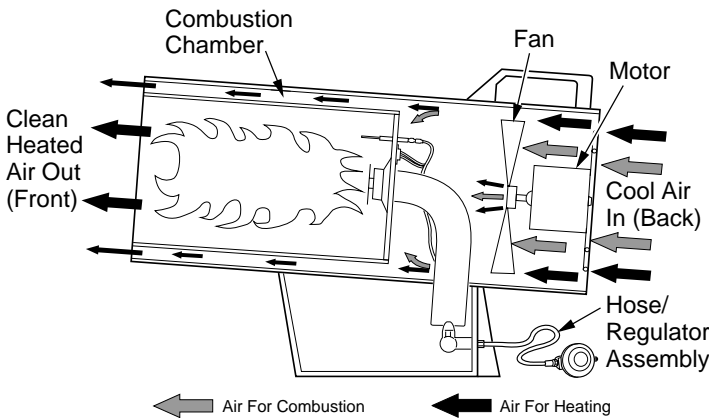


Figure 2 - Cross Section Operational View

ASSEMBLY

1. Remove screw from top of fan guard (see Figure 3). Discard screw.
2. Insert nut clip (provided with handle) with flat side facing up through slot in top of shell. Align holes in nut clip with screw hole behind slot in top of shell. (see Figure 4).
3. Place handle over hole and clip. Insert two screws (provided with handle) through handle and tighten into shell. Make sure rear screw goes through shell and into fan guard. Tighten screws firmly.

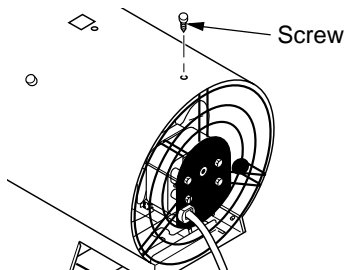


Figure 3 - Removing Screw from Top of Fan Guard

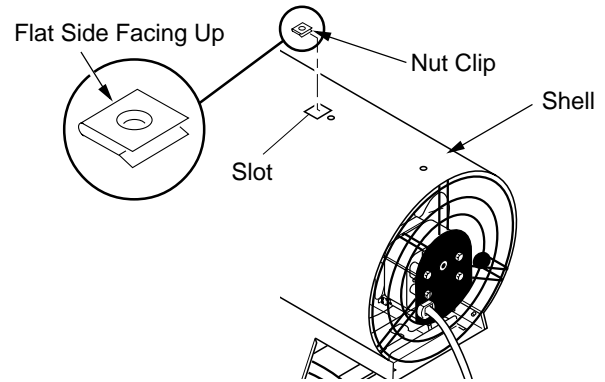


Figure 4 - Installing Nut Clip

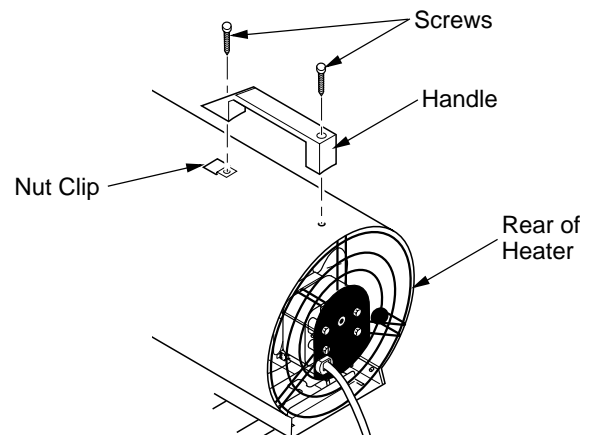


Figure 5 - Attaching Handle

INSTALLATION

⚠ WARNING: Review and understand the warnings in the *Safety Information* section, pages 2 and 3. They are needed to safely operate this heater. Follow all local codes when using this heater.

⚠ WARNING: Test all gas piping and connections for leaks after installation or servicing. Never use an open flame to check for a leak. Apply a mixture of liquid soap and water to all joints. Bubbles forming show a leak. Correct all leaks at once.

1. Provide propane supply system (see *Propane Supply*, page 3).
2. Connect fuel gas fitting on hose/regulator assembly to propane tank(s). Turn fuel gas fitting counterclockwise into threads on tank. Tighten firmly using a wrench. **IMPORTANT:** Position regulator so that hose leaving the regulator is in a horizontal position (see Figure 6, page 5). This places the regulator vent in the proper position to protect it from the weather.

INSTALLATION

Continued

3. Connect hose to valve inlet. Tighten firmly using a wrench. You must use the regulator supplied with heater.
4. Open propane supply valve on propane tank(s) slowly. *Note:* If not opened slowly, excess-flow check valve on propane tank may stop gas flow. If this happens, close propane supply valve and open again slowly.
5. Check all connections for leaks. Apply mixture of liquid soap and water to gas joints. Bubbles forming show a leak that must be corrected.
6. Close propane supply valve.

⚠ WARNING: Never use an open flame to check for a leak. Apply a mixture of liquid soap and water to all joints. Bubbles forming show a leak that must be corrected. Correct all leaks at once.

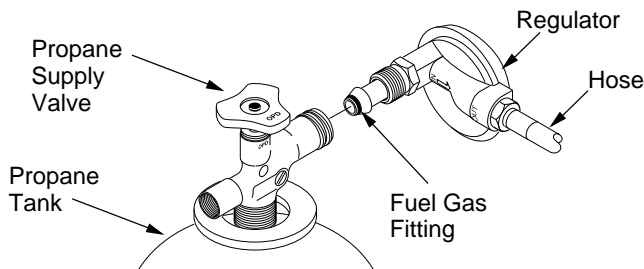


Figure 6 - Regulator Position

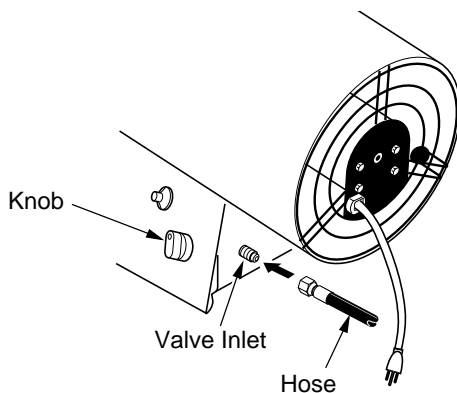


Figure 7 - Hose and Inlet Connector

VENTILATION

⚠ WARNING: Provide at least a 1.5 square foot opening of fresh, outside air while running heater. If proper fresh, outside air ventilation is not provided, carbon monoxide poisoning can occur. Provide proper fresh, outside air ventilation before running heater.

OPERATION

⚠ WARNING: Review and understand the warnings in the *Safety Information* section, pages 2 and 3. They are needed to safely operate this heater. Follow all local codes when using this heater.

TO START HEATER

1. Follow all installation, ventilation, and safety information.
2. Locate heater on stable and level surface. Make sure strong drafts do not blow into front or rear of heater.
3. Plug power cord of heater into a three-prong, grounded extension cord. Extension cord must be at least six feet long. Extension cord must be UL listed.

Extension Cord Wire Size Requirements

Up to 50 feet long, use 18 AWG rated cord. 51 to 100 feet long, use 16 AWG rated cord. 101 to 200 feet long, use 14 AWG rated cord.

4. Plug extension cord into a 120 volt/60 hertz, 3-hole, grounded outlet. Motor will start. Fan will turn, forcing air out front of heater.
5. Open propane supply valve on propane tank(s) slowly. *Note:* If not opened slowly, excess-flow check valve on propane tank may stop gas flow. If this happens, close propane supply valve and open again slowly.

⚠ WARNING: Be sure motor and fan are running before pushing in automatic control valve button. Flames could flash outside heater if motor and fan are not running.

6. Turn control knob to the low position and push in (see Figure 8 and 9, page 6). Hold knob in and push piezo ignitor button. You may need to push piezo ignitor button 3-8 times until the main burner lights. When main burner lights, keep automatic control valve knob pushed in. Release button after 30 seconds.

Note: If main burner fails to light, hose may have air in it. If so, keep control knob pressed and wait 20 seconds. Release control knob and wait 20 seconds for unburned fuel to exit heater. Repeat step 6.

OPERATION

Continued

- If main burner goes out, repeat step 6, page 5.
- When main burner remains lit, rotate control knob to the desired heat level.

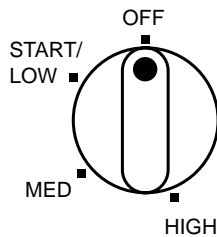


Figure 8 - Control Knob Positions

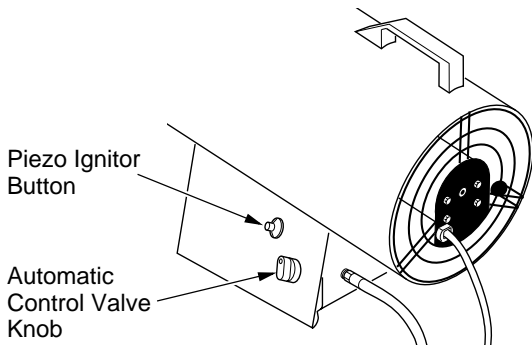


Figure 9 - Automatic Control Valve Button and Piezo Ignitor Button

TO STOP HEATER

- Tightly close propane supply valve on propane tank(s). Allow heater to burn remaining fuel in hose.
- Shut off main burner valve. Do this by turning control knob to the OFF position until it stops.

TO RESTART HEATER

- Wait five minutes after stopping heater.
- Repeat steps under *To Start Heater*, page 5.

STORAGE

⚠ CAUTION: Disconnect heater from propane supply tank(s).

- Store propane tank(s) in safe manner. See Chapter 5 of *Standard for Storage and Handling of Liquefied Petroleum Gases, ANSI/NFPA 58*. Follow all local codes. Always store propane tanks outdoors.
- Place plastic cover caps over brass fittings on inlet connector and hose/regulator assembly.
- Store in dry, clean, and safe place. Do not store hose/regulator assembly inside heater combustion chamber.
- When taking heater out of storage, always check inside of heater. Insects and small animals may place foreign objects in heater. Remove motor and other internal parts if needed to remove foreign objects (see *Service Procedures*, page 8).

MAINTENANCE

⚠ WARNINGS

- Never service heater while it is plugged in, connected to propane supply, operating, or hot. Severe burns and electrical shock can occur.
- Keep heater clear and free from combustible materials, gasoline, and other flammable vapors and liquids.
- Do not block the flow of combustion or ventilation air.

- Keep heater clean. Clean heater annually or as needed to remove dust and debris. If heater is dirty or dusty, clean heater with a damp cloth. Use household cleaners on difficult spots.
- Inspect heater before each use. Check connections for leaks. Apply mixture of liquid soap and water to connections. Bubbles forming show a leak. Correct all leaks at once.
- Inspect hose/regulator assembly before each use. If hose is highly worn or cut, replace.
- Have heater inspected yearly by a qualified service agency.
- Keep inside of heater free from combustible and foreign objects. Remove motor and other internal parts if needed to clean inside of heater (see *Service Procedures*, page 8).
- Clean fan blades each season or as needed (see *Fan*, page 8).

TROUBLESHOOTING

Note: For additional help, visit DESA International's Technical Service web site at www.desatech.com.

⚠ WARNING: Never service heater while it is plugged in, connected to propane supply, operating, or hot. Severe burns and electrical shock can occur.

OBSERVED FAULT	POSSIBLE CAUSE	REMEDY
Fan does not turn when heater is plugged in.	<ol style="list-style-type: none"> 1. No electrical power to heater 2. Fan hitting inside of heater shell 3. Fan blades bent 4. Defective motor 	<ol style="list-style-type: none"> 1. Check voltage to electrical outlet. If voltage is good, check heater power cord for breaks 2. Adjust motor/fan guard to keep fan from hitting inside of heater shell. Bend fan guard if necessary 3. Replace fan. See <i>Fan</i>, page 8 4. Replace motor. See <i>Motor</i>, page 8
Heater will not ignite.	<ol style="list-style-type: none"> 1. User did not follow installation or operation instructions properly 2. No spark at ignitor. To test for spark, follow step 9 under <i>Ignitor</i>, page 9. If you see spark at ignitor, have heater serviced by qualified service person. If no spark seen: <ol style="list-style-type: none"> A) Loose or disconnected ignitor wire B) Wrong spark gap C) Piezo ignitor loose D) Bad ignitor electrode 	<ol style="list-style-type: none"> 1. Repeat installation and operation instructions. See <i>Installation</i>, page 5 and <i>Operation</i>, pages 5 and 6 2. A) Check ignitor wire. Tighten or reattach loose ignitor wire. See Figure 17, page 9 for ignitor wire location B) Set gap between ignitor electrode and target plate to .17" C) Tighten nut holding piezo ignitor to base of heater D) Replace ignitor electrode. See <i>Ignitor</i>, page 9
Heater shuts down while running.	<ol style="list-style-type: none"> 1. High surrounding air temperature causing thermal limit device to shut down heater 2. Restricted air flow 3. Damaged fan 4. Excessive dust or debris in surrounding area 	<ol style="list-style-type: none"> 1. This can happen when running heater in temperatures above 85°F. Run heater in cooler temperatures 2. Check heater inlet and outlet. Remove any obstructions 3. Replace fan. See <i>Fan</i>, page 8 4. Clean heater. See <i>Maintenance</i>, page 6

⚠ WARNING: Use only in areas free of high dust content.

SERVICE PROCEDURES

⚠ WARNING: Never service heater while it is plugged in, connected to propane supply, operating, or hot. Severe burns and electrical shock can occur.

ELECTRICAL SYSTEM

The entire electrical system for this heater is contained within the motor. If any part of the electrical system is damaged, you must replace motor.

MOTOR

1. Remove three screws that attach fan guard to heater shell.
2. Remove motor and fan guard from heater shell (see Figure 10).
3. Use hex wrench to loosen set screw which holds fan to motor shaft (see Figure 11). Remove fan. Be careful not to damage the fan blade pitch.
4. Remove two nuts and two screws that attach fan guard to motor using nut-driver. Remove fan guard from motor (see Figure 12).
5. Disconnect the green power cord wire from motor and remove black and white wire terminals.
6. Discard old motor.
7. Attach green power cord wire to motor.
8. Attach fan guard to new motor with two nuts and two screws.
9. Replace black and white terminals.
10. Place fan onto motor shaft of new motor. Make sure set screw contacts flat surface on motor shaft. Tighten set screw firmly (40-50 inch-pounds).
11. Place motor and fan guard into rear of heater shell. Make sure power cord is properly located (see Figure 13).
12. Insert three screws through heater shell and into fan guard. Tighten screws firmly.

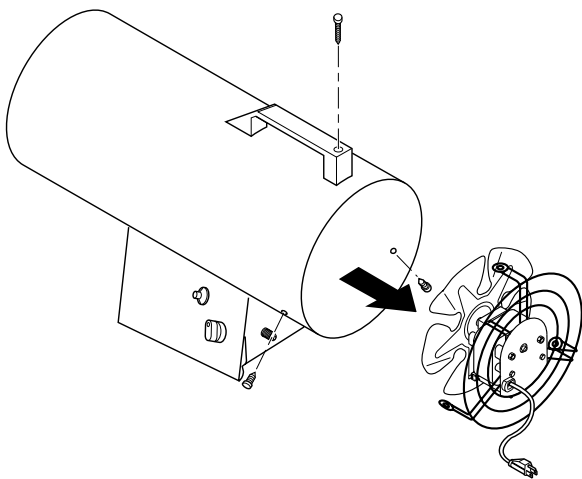


Figure 10 - Removing Motor and Fan Guard from Heater

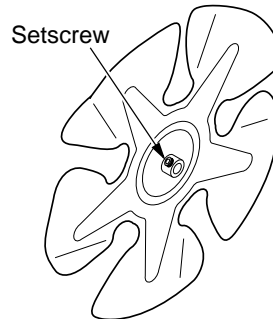


Figure 11 - Setscrew Location

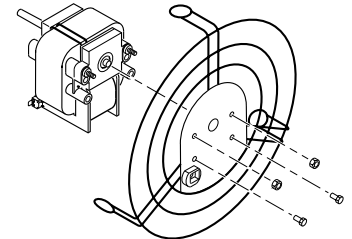


Figure 12 - Removing or Attaching Fan Guard from Motor

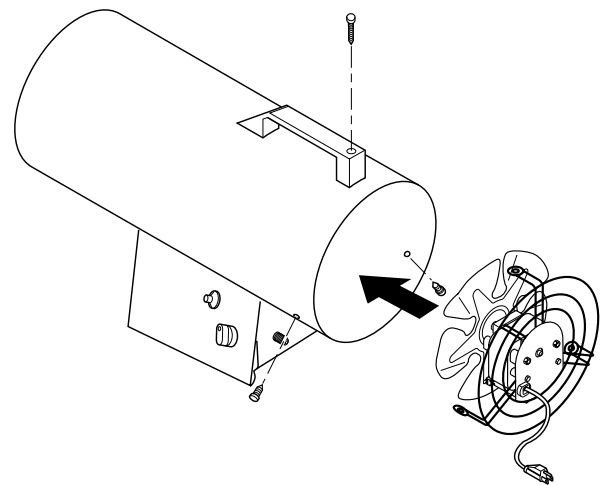


Figure 13 - Replacing Motor and Fan Guard into Heater

FAN

1. Remove three screws that attach fan guard to heater shell.
2. Remove motor and fan guard from heater shell (see Figure 10).
3. Use hex wrench to loosen set screw that holds fan to motor shaft (see Figure 11).
4. Remove fan. Be careful not to damage the fan blade pitch.
 - 5a. If replacing fan, remove old fan and discard. Go to step 7 below.
 - 5b. If cleaning fan, use soft cloth moistened with kerosene or solvent.
6. Dry fan thoroughly.
7. Place fan onto motor shaft. Make sure set screw contacts flat surface on motor shaft. Tighten set screw firmly (40-50 inch-pounds).
8. Place motor and fan guard into rear of heater shell. Make sure power cord is properly located (see Figure 13).
9. Insert three screws through heater shell and into fan guard. Tighten screws firmly.

SERVICE PROCEDURES

Continued

IGNITOR

1. Remove motor and fan guard from heater (see *Motor*, page 8, steps 1 through 5).
2. Remove black ignitor wire from piezo ignitor. Access ignitor wire through underside of heater base (see Figure 14). Push wire up through bushing in heater shell.
3. Remove ignitor mounting screw from rear head using nut-driver or standard screwdriver (see Figure 15).
4. Remove ignitor from rear head.
5. Install new ignitor. Attach ignitor to rear head with ignitor mounting screw.
6. Run ignitor wire from new ignitor through bushing in heater shell. Attach ignitor wire to piezo ignitor.
7. Set gap between ignitor electrode and target plate to .17" (see Figure 16).

⚠ WARNING: Make sure heater is disconnected from propane supply. Heater could ignite causing severe burns.

8. Test for spark. Push piezo ignitor button and watch for spark between ignitor electrode and target plate.
9. Place motor and fan guard into rear of heater shell (see *Motor*, page 8, steps 9 through 10).

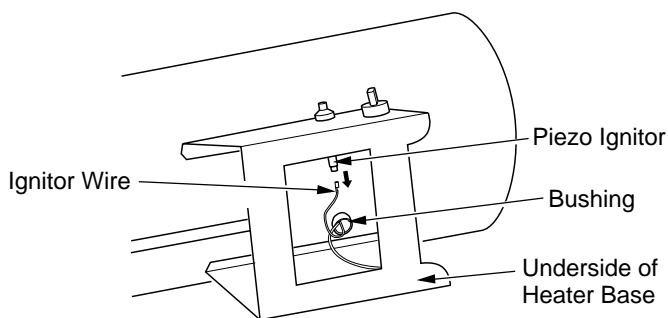


Figure 14 - Removing Ignitor Wire from Piezo Ignitor

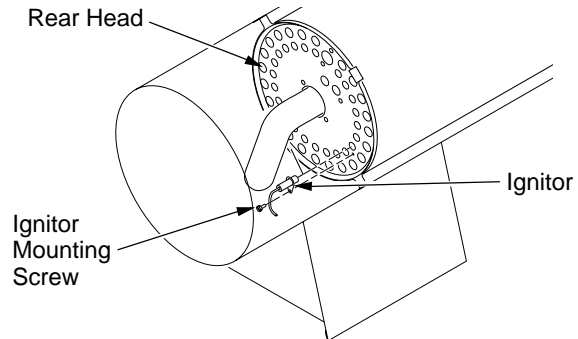


Figure 15 - Removing Ignitor Mounting Screw and Ignitor

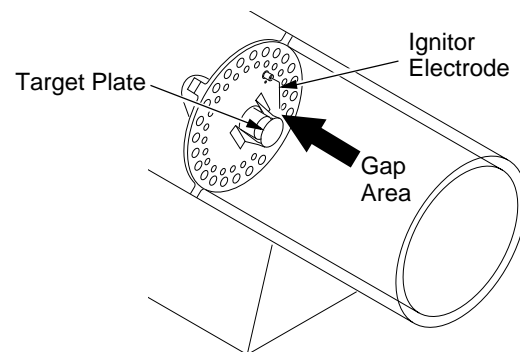
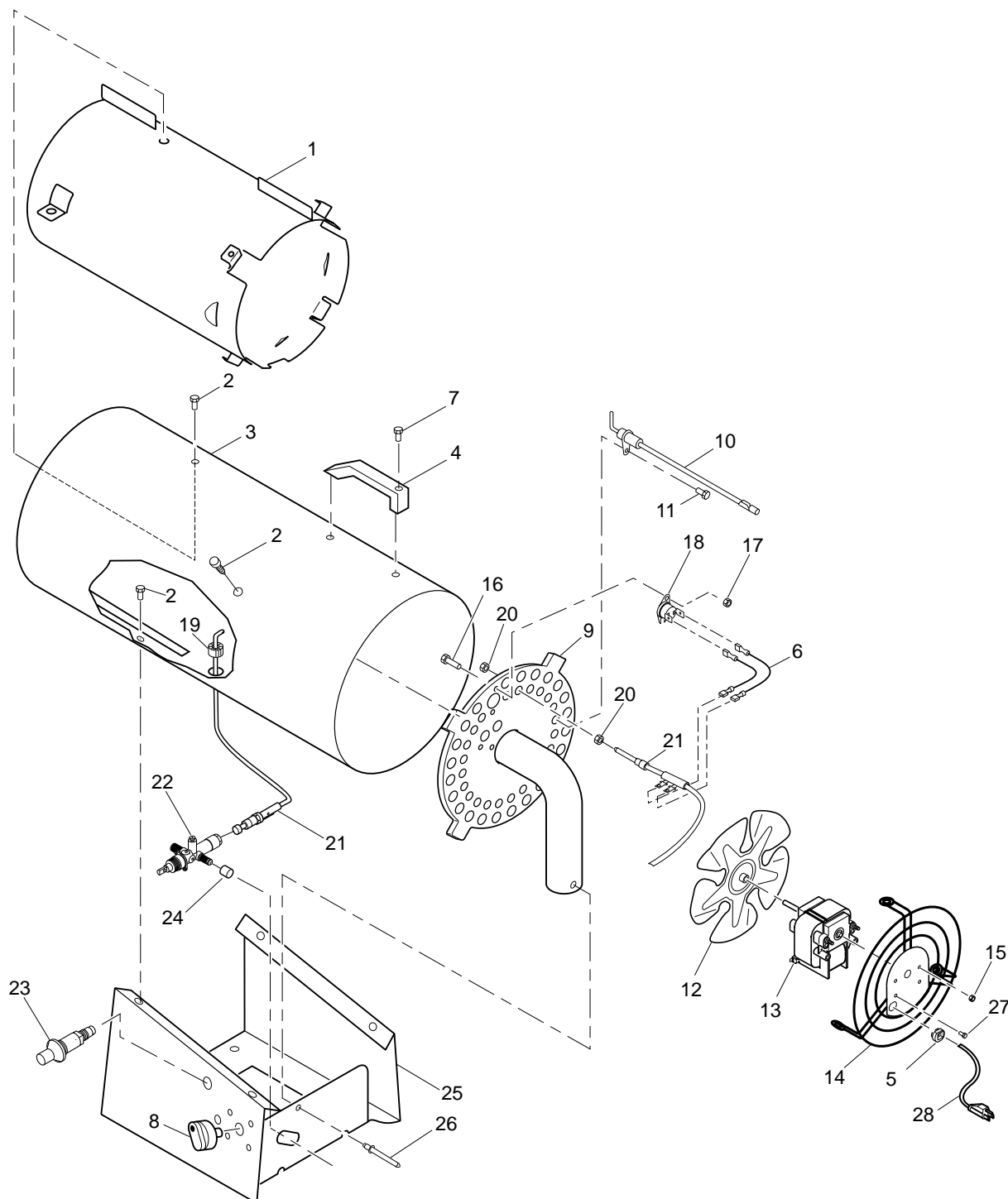


Figure 16 - Clearance between Ignitor Electrode and Target Plate

ILLUSTRATED PARTS
BREAKDOWN**MODELS: BLP50VA, REM50PVA
RLP50VA, RM50PVA**

PARTS LIST

**MODELS: BLP50VA, REM50PVA
RLP50VA, RM50PVA**

This list contains replaceable parts used in your heater. When ordering parts, follow the instructions listed under *Replacement Parts* on page 12 of this manual.

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	**	Combustion Chamber	1
2	M11084-26	Hex Tap Screw, #10-16 x 3/8"	7
3	105333-03AB	Outer Shell (BLP50VA)	1
	105333-02	Outer Shell (RM50PVA and REM50PVA)	1
	105333-01	Outer Shell (RLP50VA)	1
4	104786-01	Handle Kit	1
5	M11143-1	Bushing, Strain Relief	1
6	101480-12	Wire Assembly	1
7	M11084-27	Hex Tap Screw, #12-14 x 1/2"	3
8	099393-03	Knob, Control	1
9	105341-01	Burner Assembly	1
10	099539-01	Electrode Ignitor	1
11	M11084-38	Hex Tap Screw, #8-18 x 3/8"	1
12	101478-03	Fan	1
13	105332-01	Motor	1
14	103863-01	Fan Guard	1
15	097384-02	Captive Washer Nut	3
16	097968-05	Hex Screw, #4-40 x 1/2"	2
17	NPC-00C	Hex Nut, #4-40	2
18	101481-04	Thermal Switch	1
19	097776-01	Universal Bushing	1
20	099237-01	Thermocouple Nut	2
21	104146-01	Thermocouple	1
22	103921-01	Valve/Orifice Assembly	1
23	102445-01	Piezo Ignitor	1
24	078978-03	Sleeve Cap	1
25	105335-01	Base Assembly	1
26	099202-02	Steel Rivet, 1/8"	1
27	M12461-14	Hex Screw, 8-32 x 3/8	2
28	098219-25	Cord, Power Supply	1
PARTS AVAILABLE - NOT SHOWN			
	097941-28	Tradename Decal (RLP50VA)	2
	097647-10	Tradename Decal (BLP50VA)	2
	097941-29	Tradename Decal (RM50PVA)	2
	099596-16	Tradename Decal (REM50PVA)	2
	103867-05	General Information Decal	1
	103869-03	Operation Decal	1
	099672-01	Notice Decal	1

** Not a field replaceable part.

SPECIFICATIONS

Output Rating (BTU/Hr)	
High	50,000
Medium	40,000
Low	30,000
Fuel	Propane Vapor Only
Fuel Consumption	
Gallons/Hour	2.19 / 1.09
Pounds/Hour	9.28 / 4.64
Supply Pressure To Regulator	
Minimum (for input adjustment)	10 psi
Maximum	200 psi
Regulator Outlet Pressure	
High	18" WC
Manifold Pressure	
High	13.7" WC
Low	17" WC
Hot Air Output (CFM Approx)	275
Motor	3,300 RPM, 1/20 HP
Electric Input	120 volt/60 hertz
Amperage	2
Ignition	Manual, Piezo
Ignitor Gap	0.17"
Temperature Range for Operation*	-20°F to 85°F *
Heater Weight (Pounds)	13
Shipping Weight	15
Size - L x W x H (Inches)	
Heater	18.5 x 8.0 x 12.8
Carton	19.4 x 9.75 x 14.75

* When running heater in temperatures above 85° F, high internal temperatures may cause thermal limit device to shut down heater.

ACCESSORIES

Purchase accessories and parts from your nearest dealer or service center. If they can not supply an accessory or part, either contact your nearest Parts Central (listed in the separate Authorized Service Center booklet) or contact DESA International for information.

DESA International
P.O. Box 90004
Bowling Green, KY
42102-9004
1-866-672-6040

Part Number	Description
LPA3055	Hose/Regulator Assembly U.L. listed.
LPA4020	Fuel Gas Connector Connects regulator to all standard propane tanks. U.L. and A.G.A. listed.

REPLACEMENT PARTS

⚠ WARNING: Use only original replacement parts. This heater must use design-specific parts. Do not substitute or use generic parts. Improper replacement parts could cause serious or fatal injuries. This will also protect your warranty coverage for parts replaced under warranty.

Parts Under Warranty

Contact authorized dealers of this product. If they can't supply original replacement part(s), either contact your nearest authorized service center or call DESA International's Technical Service Department at 1-866-672-6040.

When calling DESA International, have ready

- your name
- your address
- model number of your heater
- how heater was malfunctioning
- purchase date

In most cases, we will ask you to return the part to the factory.

Parts Not Under Warranty

Contact authorized dealers of this product. If they can't supply original replacement part(s), either contact your nearest Parts Central or call DESA International at 1-866-672-6040 for referral information.

When calling DESA International, have ready

- model number of your heater
- the replacement part number

TECHNICAL SERVICE

You may have further questions about this heater. If so, contact DESA International's Technical Service Department at 1-866-672-6040. When calling, please have your model and serial numbers of your heater ready.

You can also visit DESA International's Technical Service web site at **www.desatech.com**.

OWNER'S REGISTRATION FORM

Complete registration form and mail or complete on-line registration at **www.desatech.com** within 30 days after purchase.

Brand: _____ (Reddy Heater, Master, Remington, etc.)
Model: _____ (R60, HD15, etc.)
Date Purchased: _____ Note: Keep receipt for warranty verification.
Serial Number: _____ 7 or 9 digit number located on product or identification tag.
First Name: _____ Last Name: _____
Address: _____
City: _____ State: _____ Zip: _____ Country: _____
Phone: (____) _____ - _____ E-Mail: _____

Please answer the following questions to register your product with DESA International:

1. Who will heater be used by? ☐ Individual ☐ Business
2. Will you use your heater in more than one location? ☐ Yes ☐ No
3. Where will the product be used? (You may select more than one.) ☐ Workshop ☐ Barn ☐ Residential Construction
☐ Commercial Construction ☐ Garage ☐ Factory ☐ Recreation ☐ Warehouse ☐ Utility Shed/Outbuilding
☐ Other _____ (Specify)
4. Cost of product (excluding sales tax)? \$ _____
5. Maintenance/service work will be performed by: ☐ Self ☐ Service Center ☐ Other _____
6. If you bought this product yourself, did you plan to purchase this type of product before going into the store? ☐ Yes ☐ No
7. Type of store where product was purchased? ☐ Hardware ☐ Propane Dealer ☐ Natural Gas/Utility Co. ☐ Home Center or Builder's Supply
☐ Farm/Ag. Supply ☐ Auto Parts ☐ Warehouse Club ☐ Industrial/Contractor Supply ☐ Rental Store
☐ Discount Store ☐ HVAC Dealer ☐ Other _____
8. What is your primary source of heat? ☐ Propane (LP Gas) ☐ Natural Gas ☐ Kerosene ☐ Diesel ☐ Electric ☐ Other _____
9. What motivated you to buy this product? ☐ Sudden Cold Weather ☐ Replace Older Model ☐ D.I.Y. Home Project ☐ Emergency Back-Up Heat
☐ Heater on Sale ☐ Construction Project ☐ Hard to Heat Location ☐ Other _____
10. How did you learn about this product brand? ☐ Advertisement ☐ Relative or Friend ☐ Co-Worker ☐ Store Representative
☐ Store Display ☐ Previously Owned a Heater ☐ Other _____ (Specify)
11. What other brands did you consider? ☐ None ☐ Master ☐ Remington ☐ All-Pro ☐ Dayton ☐ Universal ☐ Mr. Heater ☐ L.B. White Tradesman
☐ John Deere ☐ Dyna-Glo ☐ Dura-Heat ☐ Paulin ☐ Coleman ☐ Vogelzang American ☐ Other _____
12. Who selected the product? ☐ Male ☐ Female ☐ Both
13. Level of Education of Purchaser: ☐ High School ☐ Vocation/Technical School ☐ Some College ☐ Completed College ☐ Graduate School
14. Age of Purchaser: ☐ Under 20 ☐ 20 - 29 ☐ 30 - 39 ☐ 40 - 49 ☐ 50 - 59 ☐ 60 or Over
15. Buyer's total annual household income: ☐ Under \$19,999 ☐ \$20,000 to \$34,999 ☐ \$35,000 to \$49,999
☐ \$50,000 to \$74,999 ☐ \$75,000 to \$99,999 ☐ \$100,000 and Over
16. What is the population of your area? ☐ Under 10,000 ☐ 10,000 to 25,000 ☐ 25,000 to 50,000 ☐ 50,000 to 100,000
☐ 100,000 to 250,000 ☐ Over 250,000
17. Store where product was purchased:
Name: _____ City: _____ State: _____
18. In choosing this product, how important were the following:

	Not	Somewhat	Very		Not	Somewhat	Very
Availability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Size	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Price	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Prior Brand Experience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brand Name	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Built-In Thermostat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall Quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ease of Operation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heat Output (Btu/Hr Rating)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Special Features	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Variable Heat Output (Btu/Hr)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Salesperson's Recommendation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Made in USA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Friend/Relative's Recommendation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Warranty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Portability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local Service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Quiet Operation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Value for Price	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				
19. This question will allow us to better understand the demographic profile of our customers. Which of the following best describes you? (not required)
☐ African American ☐ Asian American ☐ Mexican ☐ Puerto Rican ☐ Cuban ☐ Other Hispanic ☐ White ☐ Other _____

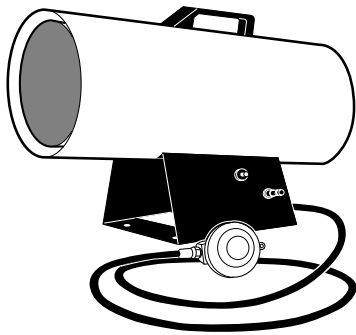
TAPE

Postage
Required

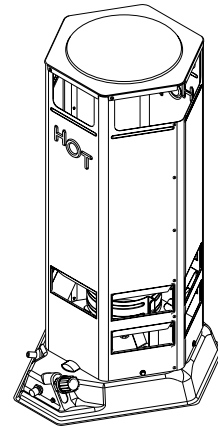
DESA[™]
INTERNATIONAL
2701 Industrial Drive
P.O. Box 90004
Bowling Green, KY 42102-9004

TAPE

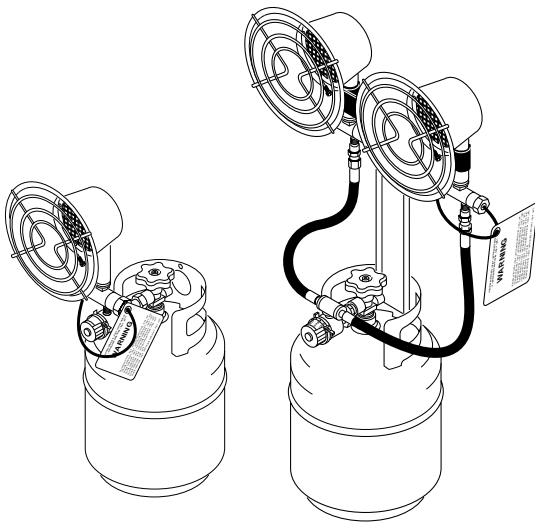
OTHER OUTDOOR HEATING PRODUCTS



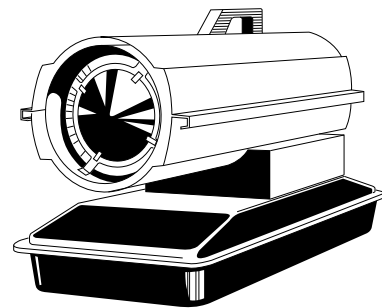
PROPANE/LP FORCED AIR HEATERS



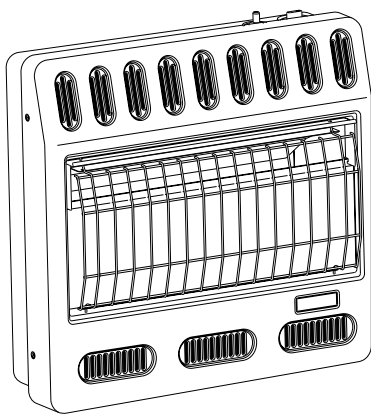
PROPANE/LP CONVECTION HEATERS



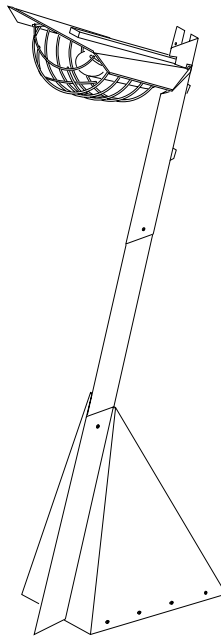
PROPANE/LP TANK TOP HEATERS



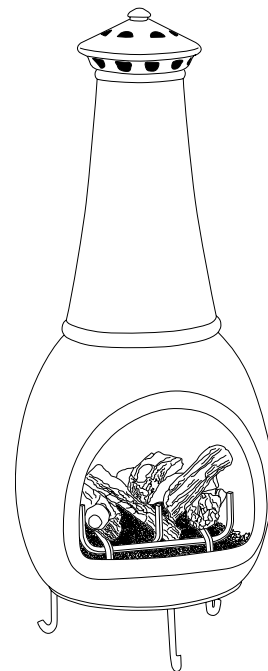
**PORTABLE KEROSENE/DIESEL
FORCED AIR HEATERS**



**PROPANE/LP AND NATURAL
GAS GARAGE HEATERS**



**PROPANE/LP
PATIO HEATERS**



**PROPANE/LP AND NATURAL
GAS CHIMENEAS**

WARRANTY AND REPAIR SERVICE

KEEP THIS WARRANTY

Model _____

Serial No. _____

Date of Purchase _____

LIMITED WARRANTY

DESA International warrants this product and any parts thereof, to be free from defects in materials and workmanship for one (1) year from the date of first purchase when operated and maintained in accordance with instructions. This warranty is extended only to the original retail purchaser, when proof of purchase is provided.

This warranty covers only the cost of parts and labor required to restore the product to proper operating condition. Transportation and incidental costs associated with warranty repairs are not reimbursable under this warranty.

Warranty service is available only through authorized dealers and service centers.

This warranty does not cover defects resulting from misuse, abuse, negligence, accidents, lack of proper maintenance, normal wear, alteration, modification, tampering, contaminated fuels, repair using improper parts, or repair by anyone other than an authorized dealer or service center. Routine maintenance is the responsibility of the owner.

THIS EXPRESS WARRANTY IS GIVEN IN LIEU OF ANY OTHER WARRANTY EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

DESA International assumes no responsibility for indirect, incidental or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations or exclusions may not apply to you. This Limited Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

We reserve the right to amend these specifications at any time without notice. The only warranty applicable is our standard written warranty. We make no other warranty, expressed or implied.

WARRANTY SERVICE

Should your heater require service, return it to your nearest authorized service center. Proof of purchase must be presented with the heater. The heater will be inspected. A defect may be caused by faulty materials or workmanship. If so, DESA International will repair or replace the heater without charge.

REPAIR SERVICE

Return your heater to your nearest authorized service center. Repairs not covered by the warranty will be billed at standard prices. Each Service Center is independently owned and operated. We reserve the right to amend these specifications at any time without notice.

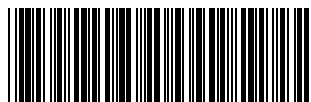
When writing for information regarding your heater, be sure to include the model number and serial number as shown on the model plate.

For more information about this warranty, write:



2701 Industrial Drive
P.O. Box 90004
Bowling Green, KY 42102-9004

ATTN: Customer Service Department



105331 01

NOT A UPC

105331-01
Rev. C
10/02

For more information, visit www.desatech.com